Tracks of My Fears

Tracks of My Fears

A curious thing happened several years ago during a rather dull banquet. I struck up a conversation with a retired physics professor who confessed that his great love was throwing pots and that he didn't care if they never saw the light of day. I understood how he felt having long plied the art profession though being reluctant about displaying my work and often discarding it. Contrary to popular belief, creating imagery is not predicated upon viewer-ship. As reported to Robert A. Rundstrom in 1989 by an old Inuk Eskimo regarding the maps he had drawn from memory,

> "...he smiled and said that long ago he had thrown them away. It was the act of making them that was important, the recapitulation of environmental features, not the material objects themselves." [1]

Thus the driving force begins with an impulse for imaging and this is the subject at hand.

We wondered through the evening about what triggers the human impulse for image making bearing in mind that it has no choke hold on representation nor on one medium over others. In fact, it may have nothing at all to do with media but rather only mind. Consider that a dancer carves a design out of the air with his arms and leaves a trace of that form in our short term memory. An artist crafts an image to anticipate a universal recollection by selecting salient associations. A musician captures our attention with hints of imminent notes such that we invent the next one just slightly before hearing it and then retrace the line by hitting mental 'replay'.

Unfortunately though, these emanations of 'creativity' have been hampered by Western scholars whose awestruck exegesis has somehow removed them from the gamut of more humdrum human functions and set them high on a pedestal of enlightened inspiration. Given the 'Age of the Brain' in which we find ourselves, perhaps it is time to

set this impulse firmly within the context of advantageous cognitive function. In other words, it is time to attribute the imaging impulse to the biology of our particular species and one driven by survival imperatives at that.

In each of the above mentioned creative efforts, we are led like Hansel and Gretel with mere suggestions as to the intended route. Figuring our way 'out' literally secretes our cognitive juices, and we do the very same thing when conceiving or reading a piece of art. Clearly we don't know where the whole dance is leading nor the melody nor can we for that matter perceive the entire wall of graffiti beyond the initial second before we automatically lock into a visual track to read the clues point to point (fig.1).

In fact, all iconography seems always to have careened towards complexity asking us to stop short and follow the undulating line. A random sampling yields: Maori canoe carvings (fig. 2), Celtic Knots, statuary folds, Belgian Lace, Mudejar plaster work, Aztec serpent carving, Labyrinths, apartment buildings, textiles, novels and murder mysteries. You get the picture.

Why do we do this, and how does the artist know we shall succumb to the enticement? Because all these emanations depend on the willingness of the viewer to seek and follow a manipulated course in order to instinctively collect these highly selected crumbs of perceptions like a line through the forest.

But they are all nothing more than maps especially when you understand that mapping is first about salient and fixed associations (fig. 4). From these one can plug in variable points of view so that only secondly is mapping about direction. All animals map

their relative location by fixing coordinates. Recent studies of the limbic system and hippocampus for rodents have isolated certain areas and neurons specifically designated for plotting coordinates. They tend to make their way around their environment by distal plotting along the outer edge of their cage so it is assumed we are no different, a fact well established through the life story of Henry Gustav Molaison, now deceased, whose largely excised hippocampus still had enough tissue and the right kind to incise fresh floor plans in his memory.

Our own antediluvian instinct to set down routes amidst pervasive ambiguity and chaos is a driving biological habit formed by millions of evolutionary years in which our ancestors perfected erect bi-pedalism. We take it for granted but our heritage is rooted in route forging that is calibrated by the silent metronome of body functions like heart beats and breathing alongside the louder rhythms of stride, arm swing and even grunts as we site about thirty feet ahead on average to plot our own immediate path. This seems to be our natural distal sweet spot for foot navigation. It is therefore not surprising that our eyesight was standardized at around 20/20 feet. This can be tested anecdotally by anyone. Walk head on to an approaching pedestrian and note at what distance they swerve to avoid you. Inevitably they try to hold course but angrily move off at approximately 25 to 30 feet.

There is a great deal of information contained in this behavior which informs much of our art thinking and application. For one thing, all visualization in this walking mode establishes an emphatic point of view. One's body; arms, hands, feet, nose, even torso always frames out the periphery of our vision such that we never lose sight of ourselves.

Therefore, we navigate with a clear though subliminal perspective of egocentricsm. And never except for momentary stasis such as sitting or standing still from a high vantage point, does our vision ever free itself from the peripheral context of our physicality.

Rory Stewart in his book, *'The Places in Between'*, justified his trek through Afghanistan as follows:

> "There was a magic in leaving a line of footprints stretching behind me across Asia...I watched the pebbles flashing past beneath me and felt that with each strike of each heel step I was marking Afghanistan." [2]

The million of years needed to evolve a truly erect bi-pedal creature did more than advance gross motor physiology, it helped organize the cognitive grid of our brains and the way we receive and dispense data. For one's body literally drafts the connections between the coordinates namely each step you take as your mind calibrates all the various ways images get strung along in this highly structured and personal narrative.

In effect, the data coalesces around a natural grid created by the body's inborn measuring of pace. More than you think you know floods each step and fills out a given packet of data bracketed by your stride, meted by vital signs and sensorimotor processing. It's a reliable and orderly way of laying down information in tiny minute narratives. What brings them forward as essential recollections and ultimately maps belongs to the way we triage caution.

What's different about the beginnings of 'art' as cautionary devices that map warnings is that for the first time we could move forward and back in time to predict outcomes at the same time as reminding us of momentous stories. We resurrect them or

aspects of them as paradigms for our advantageous use in the future. At some point Stewart's heel broke the ambient pattern of snow in conjunction to a gunshot. That fear elicited a search for environmental disruptions that would serve as clues to protect him in the future. He noticed 'difference' as against 'sameness' for navigational markers in his narrative of fear and escape which finally reached critical mass. These then coalesced as a fixed set of associations he could employ against the unknown. That irregular gash in the snow he just passed could become his 'search alarm' for the Taliban.

Thus disruption of patterns (figures 6,7,8) became the primary indicator of change, the key emblem of significant stories which to this day helps explain why we instinctively scan repeats for the break in the pattern and why JM Chernoff wisely wrote that there is power in rhythmic conflict precisely because, "…people are affected and moved." [3] Or why Ernst Gombrich said, "...(it) contributed to an impression of rapid movement because we speed up scanning in an effort to grasp the visual array (fig. 5) ." [4]

The 'art' impulse devolves from this forward and back referencing wherein Hansel and Gretel decide to leave the crumbs as a memento of their escape so that sinewy path becomes both the memory of danger as well as salvation. The story validates the path as a 'search alarm' to be employed either as a memory but more usefully as an image should they set foot in the forest again. In this way we all enshrine salient associations in order to manage our environment.

But scientists are hard pressed to account for the 'imaging' latency and paltry record of our forbears. Why did the Cro-Magnons wait over 100,000 years after our appearance in

Africa to produce imagery? Could this cognitive function have erupted in full bloom as many believe by the societal changes implicit in colonization?

The plastic stability of objects when viewed through the small end of a telescope is misleading, the context for lives entirely lost and the natural dependence on the environment silent. It is important to remember that 'imaging' need never have been suitably stable to function as art. Posterity has little to do with motive in this early impulsive stage, nor does identity and signing one's piece. As the art critic Sidney Tillim often warned us at Bennington, "Don't be so precious about your work." Efficacy trumped durability.

In fact, until recently mapping for the Aivilik Inuits was about 'eye memory' first and only eventually and perhaps reluctantly about transferring this paradigm of associations onto a plastic substance, the first one being the snow itself. According to Claudio Aporta breaking a land trail,

> "...presupposes a deep knowledge of the terrain topography. They must know what certain landmarks look like when approached from a particular direction...know the wind directions....they must read the snowdrifts correctly." [5]

Friedrich Ratzel was among the first to use this term about the natural geographers in Australia whose arid lands and mercurial aquifers forced them to engage in extra thinking about markers. For others like the Marshall Islanders whose survival depends on reading the nuance of their land, they configured a three dimensional system of salient clues or markers that according to H. de Hutorowicz in '*Maps of Primitive Peoples'* remain undecipherable (fig. 3):

> "They consist of wooden sticks fastened together at various angles with shells and small stones...The position of the sticks give a variety of information, much of which is still obscure, but it is known that they indicate places where the combers fall most violently upon the shores." [6]

There is simply no other way to explain these maps as anything but sculpture which begs the obvious question that all art is in fact map making: Formulating the essential relationships of salience such that it has steadfast readability among people sharing beliefs. These beliefs are the same as cognition, where the vagaries of circumstance cannot disrupt how we perceive difference.

For example, we have always needed to identify friends from foes in all light, twilight being the most problematic given the shift to rim lighting and partial contours. We needed to know that spots on a leopard at dawn were the same at noon. We needed to compensate for what Edwin Land described as retinex theory wherein the mercurial perception of color in a changing context was cognitively discounted and color constancy intellectually maintained. We needed to know that for venomous snakes, "Red next to black venom lacks but red next to yellow kills a fellow," even if the intense red looks grey in the red shift of evening. At some deep cognitive level we needed to construct a reliable code to safeguard us in all light. How did we relate this wisdom?

To be perfectly frank, there is nothing at all different were I to draw the profile of a given face by plotting the distance between such markers as the nostril and the upper lip, or charting the inlet where the ear meets the jaw. I am drawing a 'search alarm', a system of attributes that will alert you to their identity. An 'alarm', however is merely a warning to be

constructively used and does not come in tranches of bad or good. My husband carries fixed associations for my face that spike his synapses in astronomical numbers such that asking him to describe it with the limitations of stringing one word after another is a mere specter of what he knows since he can find me in a crowd.

So walking, the gross motor form of delineation, sets up narrative thinking by anchoring this form of cognition to one's personal point of view. This is key in our imaging behavior because it triggers a unique dialogue of 'self' versus the environment that is conceived as 'other'. This contrasts markedly with perception when we sit or stand with chin lifted forward and up. It is the only time we lose our body in our visual periphery. Stasis has much to do with extreme distal viewing and the orphaning of our point of view. Looking up and out allows for panoramic surveying in which we lose our grounding of personal perspective and are flooded with the fear and awe of a larger but unknown perspective in which we participate. Again, we are so used to this dichotomy of perspectives that we are little aware of the stealth effect it has on perception.

It is doubtful that other animals are so buffeted by this point of view dilemma. Perhaps a reason is that we balance our head atop a spine without the weight of our jaws or brows pulling our glance downward, never freeing us of our own presence. The orifice through which it passes called the Foranem Magnum is positioned among apes in the rear requiring strong nape or nucal muscles to hoist the chin up as well as it can.

Our species and only one other extinct relative sports such a central location for this connection which, according to Richard Leakey, may have had more to do with the

shrinking of formerly massive brows and jaws as new cortical matter massed above the eyes. The upshot is that our neck muscles needed less power allowing us to raise our chin and eyes. We now could look largely forward, outward and even upwards. Yet with this came a rude awakening. We finally had the choice to lose our body framed perspective and to float free and seemingly unattached into the strange domain we inhabited.

In his book *Thespis* on the origins of theatre, Theodore Gaster referred to this generalized natural stage upon which we perform the 'Topocosm': "The entire complex of any given locality conceived as a living organism." [7] Thus we get the anthropomorphizing of cities and towns as 'he' or 'she', a behavior aptly described by John MacDonald in "*The Arctic Sky: Inuit Astronomy, Star Lore and Legend"* wherein the Inuits of Igloolik determine their enormously vital navigation routes across the ice as,

> "...the very arteries and nodes, the topographical anatomy, through which (they) comprehend the totality of their land and access its life giving resources." [8]

Therefore, our perception of the environment is framed out by our individual physical body and personal relativity against an encompassing and projected point of view for this other being, the topocosm.

Anthropologists call this a con-substantial relationship which is a very nice term but does not adequately address the awe and angst of this ever frustrating love affair. Enter Augustine of Hippo later beatified as Saint Augustine but very much a man of the flesh and fully engaged in this battle of self versus the 'living entity' and to such an extent that it is to him we must attribute the word "Soliloquy". This is the specific dialogue amongst

these various points of view locked so deeply into our cognitive priming that some might even call it the source of our consciousness. But it is upon this rich conflict that all imaging impulses and 'art' derive. For those urgently required 'search alarms' were a personalized means for projecting the behavior of the topocosm.

On a very conscious level the environment is a respected adversary. This has a lot to bring to our endurance behavior. For instance, we mimic animals we intend to kill in order to infiltrate their system which directly increases our respect. Why wouldn't we do the same for the physical land we inhabit particularly if we consider it as both adversarial and essential? How could we not extol the deer and dog paths we follow or the telltale lines of soft ice cracking? How could we not apply the patterns of interlocking vines and foliage for our weaving and knotting and building or resurrect in our fashion the trees we climb let alone all the beats, decibels and movement that define this strange but all encompassing organism?

And when we attempt to conscript these motifs for our beneficial use we do it across cognitive platforms like playing three dimensional checkers. We convert sound for image, touch for form, movement for pattern. Bruce Chatwin left Sotheby's UK to research this 'thinking' among the Warlpiri Aborigines. For them 'Yiri' or songlines best explains their mnemonic device for translating the topocosm into human terms. This is not about musical notes writ large but about sound as movement on a grand scale conceived as footprint paths throughout their sacred lands. These are their explanations for their particular beliefs about consubstantiality also known as 'Dreamtime' myths:

> "They believe that their land came into being as each ancestor scattered a trail of words and musical notes along the line of his or her footprints. This labyrinth of invisible pathways which meanders all over Australia is known as songlines..." [9]

Art is as biological an imperative of our survival as is walking, procreation and foraging because it has always been a cognitive thought test about triaging escape and success procedures against natural threats and for natural delights. It is a mental process first which is then translated by the inherent clumsiness of one's limbs, of material and tools and time. This includes intentionally dragging your toe in the sand or finger through ashes; things we certainly did for thousands of years before tackling stable media.

Given all these limitations we must leave far more on the cognitive plate than we can possibly hope to relate thus forcing us to drill down hard on a concept to fashion the most effective map: I notice every bump along your chin but I can't draw two lines at once, nor speak two words, nor look at two different points on your face. I live and create in analog and linear mode and this requires me to prioritize.

Contrary to Michael Polanyi's oft quoted phrase, "We know more than we can say" suggesting data works as silent or tacit clues towards conscious goals, imaging or 'saying' it is truly the culprit here. Siphoning the $10^{17\text{-}20}$ spikes or synaptic potentials in .5 milliseconds [10] of the human brain in a point to point configuring from which any cognitive transposition originates makes us momentarily more rather than less aware of those 'silent clues' simply because we can't use them all. Attending means rationing in order to throttle down ambiguity. The good part is that we know it and adapt accordingly.

Recollection is an instantaneous process in this transfer. Because I shift my vision away from subject to drawing or from mind's eye to medium, I am in effect remembering and smudging all those minute connections. I am therefore, deeply tracking certain associations to the exclusion of others.

But not all imaging morphs into art. Nor are all 'alarms' worth remembering. We need to know about the cortical inroads carved by varying degrees of shock and salience. In other words, we need to know about the emotional impact of perception and why some stories, let's say about escape, are made to be remembered and others are merely place holders for ambient recollections, in the event of say, ever passing Red Rooster Restaurant again for jumbo fries.

There is no answer and never will be a single explanation for why it is we do this or even how because we are an integrated network of so many moving parts just as we are the catchall of millions of years of primate evolution; a seemingly random but indefatigable experiment in adaptability. But the most telling evidence is that we responded differently to the environment because we were able to. We were endowed with the equipment that other species perhaps carried but we used best. Erwin Schrödinger elegantly restates the 'use it or lose it' mantra when he explained in his essay on '*Mind and Matter'*: “Selection would be powerless in producing a new organ if selection were not aided all along by the organism's making appropriate use of it.” [11]

We cringed and craved the unknown. Eskimos say, “Glorious it is when wandering time is come.” In 1853, the French poet Theophile Gautier expresses the same thing in

"Wanderings in Spain" that the misfortune of modern life is the "..want of surprise and the absence of all adventure." [12]

If our lives are primed by constant stimuli as are all creatures, we triage the cost/benefit of our responses in order to streamline the work of the day and the expenditure of energy. We come to recognize that some 'shocks' are recurrent and non threatening stimuli to be safely ignored. They are neutral. We call this habituation and Eric Kandel has pointed out that the synaptic permutations either erode or feather out marginally. He calls this homosynaptic depression, "...because the synaptic response was decreased and homosynaptic because (it) occurred in the same neural pathway." [13]

The take away is the characterization of the alarm or stimulus. "Search alarms" were those categorizations of shock stimuli that had survival imperatives most likely on a daily basis. They required unbridgeable associations to predict outcomes. In our peregrinations across threatening terrain, in our foraging and our escape from predators and in our delight with safety, succor and success, we triaged stimuli. Kandel calls this heterosynaptic sensitization: "It teaches the animal to attend and respond more vigorously to almost any stimulus after having been subjected to a threatening stimulus." In this case the neuron sprouts more connections in order to remember. Classical conditioning is a more electric form of the same where in the coupled stimuli becomes the shock itself. The imaging impulse derives, I believe, from the sensitization category.

Finally, we come to the art itself, the fixing of associations to be read across time and people. My only caveat is that our imaging impulse merely begins with search alarms.

It is not the whole story. But to tell that story, to transpose the choices, to literally get the idea out of the brain and physically configure the map of these stimuli, we needed something that most scholars consider to be the essential characteristic of speech.

Syntax is not the exclusive handmaiden of language. Nor is art the handmaiden of speech leeching off its structure and translating imagery into symbols as many including Oliver Sacks, Steven Pinker and Richard Leakey contend. Representation is transposing a premise by means of virtually simultaneous associating. It is a restrictive drilling down of point to point selecting that must start and stop somewhere. Choices about importance and order, what comes first on down to last is the means by which we 'convince' you of our map specifically because we can't do two things at once. So we enhance this necessary order with parenthetical rephrasings called recursion. There is simply no other way in our finite world and it is in no way different than what Frank DeKova in the role of Chief Wild Eagle told "F Troop":

> "Go back same trail you came. Make right turn at big rock look like bear and left turn at bear look like rock." [14]

This is about fixed relationships with the added informational layer of personal relativity such that one 'knows about' salient markers in terms of oneself as the rogue coordinate. This is why terrain devoid of bold natural markers nudges passive 'seeing' to active 'looking' and then contextual 'seeking'. R.C. Gagne explained this for the Eskimo language in '*Spatial Concepts in the Eskimo Language*' with the three word sentence, "ililavruk manna ilunga." Translated it becomes, "Please put this slender thing over there

crosswise on that end of that slender thing to which I am pointing." [15] Everything is relative. My Danbury Road is your Brewster Road.

Art is dependent on impactful sequencing - syntax. And walking our way out of threatening terrain is our most basic and integrated act of syntax. In this same way, story telling reveals itself as a progress set up by the thing we do most and better than other creatures. We walk in lines alternating one foot after the other to get us from here to there even as our thoughts dart around. But they too are sequenced just as our cognition is orchestrated by this sloth like metronome. The memories we keep are insidiously keyed to it because we receive sensory inputs and configure thoughts that are laid down by means of the concatenation of our steps. Just because we take this for granted does not mean it is not there. It is part of our biology, part of the way we input and arrange data in order to survive. Who hasn't said about forgetting something, "Try and track it back."

Some would say we are the supremely conscious creature. I'd say we are the supremely 'narrative' one. What matters to us and how we survive is hinged to the tracks we have laid down over thousands if not millions of years, our ancestors passing along the same metered walking that carved out unique pathways and habits in our brains.

We think and execute based upon tracking that unfolds over time and incrementally. 'Search alarms' are dependent on this same syntax, associations that take precedence over others such that if they were re-arranged the message could not be transferred and understood. I could not have drawn your nose above your eyes if I wanted

you found. Our very first search alarms required gravitas but that did not exclude irony and even whimsy as effective means to demonstrate useful differences.

These inventions of ours were urgently felt and frustrating to execute as any artist can tell you. Even today, they aid us in remembering remarkable stories by becoming place holders for them before eventually signifying them. Ultimately, when the urgency of the story recedes the images become penumbral, mere shadows of their former function. As such 'art' evolves into the more commonly ascribed signage, metaphor, mementos and icons. But it begins here, impulsively, desperately, joyously, seeking a path through the confounding mystery of the unknown.

Alexandra Corbin 2009

1. Rundstrom, Robert A. 1990 A Cultural Interpretation of Inuit Man Accuracy, *American Geographical Review,* 80, 2:155-168
2. Stewart, Rory, 2006, *The Places in Between* , Harcourt
3. Chernoff, JM, 1979, *African Rhythm and African Sensibility: Aesthetics and Social Action in African Musical Idioms*, Chicago, Univ. of Chicago Press, p.160
4. Adams, Monni, 1989, Beyond Symmetry in Middle African Design, *African Arts,*UCLA, 23,1:37
5. Aporta, Claudio, Routes, Trails and Tracks:Trail Breaking among the Inuit of Igllolik, *Centre Interuniversitaire d'Etudes et de Recherches Autochtones, Quebec*
6. Hutorowicz, H. De, 1911, Maps of Primitive Peoples, B*ulletin of the American Geographical Society* 43:669-79
7. Gaster, Theodore H. 1961, *Thespis,* Garden City, Anchor Press
8. MacDonald, John, 2000, *The Arctic Sky:Inuit Astronomy, Star Lore and Legend*, The Roay Ontario Museum
9. Krause, Kerri Lee, O'Brien, Dan, 2001, Adolescent Second Language Writers in China, *Research on Sociocultural Influences on Motivation and Learning* ed. by McInerney & Van Etten:Chapter 12
10. Many differ on this. It is also often quoted that we possess over 50 different types of neurons and perform over 20 million operations per second.
11. Schrodinger, Erwin, 1992 *"Mind and Matter"* Cambridge Press, p. 113
12. Gautier, Theophile, 1853 *Wanderings in Spain*,

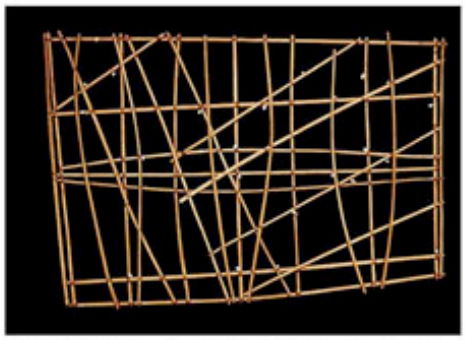
13. Kandel, Eric, 2006 *In Search of Memory,* New York, WW Norton
14. '*F-Troop'* 1966, episode 19 directed by Gene Reynolds, Frank De Kova as Chief Wild Eagle
15. Gagne, R.C. 1968, Spatial Concepts in the Eskimo Language, Valentine and Vallee editors, *Eskimo of the Canadian Arctic*, Toronto, pp 30-38 Quoted by Judith Kleinfeld , 1971, in her study Visual Memory in Eskimo Children,, *Canadian journal of Native Education*, 11,3:134

Figures:

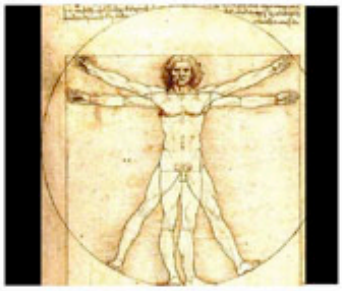
1. Graffiti by New York 79
2. Carved wooden stern of 19th century Maori war canoe
3. 'Rebbelib' – Marshall Islands Stick Chart or map
4. Da Vinci's Vitruvian Man or The Canon of Proportions
5. Kuba Cloth, South Eastern Congo
6. Thar Desert (Great Indian Desert)
7. Tracks in the snow
8. Tundra Snow formations and patterns

1. *Air 3 Five Points by New York 79*

2. *Stern of 19th century Maori war canoe (waka taua), Auckland Museum, New Zealand*



4. *Da Vinci, Vitruvian Man or The Canon of Proportions circa 1487, in the Gallerie dell'Accademia, Venice*



3. *"Rebbelib": Marshall Island Stick chart of two island chains. It is believed the diagonals indicate waves and swells. collected by Admiral E.H.M. Davis on HMS Royalist,1890 to 1893. (collections of the British Museum, UK)*

6. *Thar Desert (Great Indian Desert) 77,000 sq mi between Indus River plain, Aravalli Range and Punjab plain.*

5. *Kuba cloth, South Eastern Congo W. Norton Grubb Collection, Berkeley, California*

7. *Tracks in snow*

8. *Tundra snow patterns*

9.